The **advantages** of proper **ventilation**

A controlled mechanical ventilation system with heat recovery is a system designed for the **continuous air exchange** in the home and in all indoor environments in general that allows stale air to be replaced and substituted with fresh, oxygen-rich outside air.

The choice of integrating a ventilation system into a building makes it possible to ensure proper exchange of air in closed rooms in all situations where it cannot be managed by opening windows. This is essential in promoting the evacuation of pollutants that accumulate in indoor spaces by ensuring **greater comfort** and **health** at home or in office spaces.

Mechanical ventilation is also essential in all modern homes or buildings with high energy efficiency and a high percentage of insulation for the prevention of issues regarding humidity and mould.

The most advanced VMC systems include a **heat recovery** system: the thermal energy of the outgoing air that has been heated or cooled is retained in the exchanger and then transferred to the incoming air, which will therefore be warmer in winter and cooler in summer than the outdoor air.

I Plus

- Continuous, uniform temperature management;
- Control of the percentage of humidity in rooms;
- Advanced air filtering;
- Containment of external noise;
- Reduction of energy loss to a minimum.

HFR - Horizontal ceiling units

Air renewal units for residential application in the HFR series feature very high heat recovery efficiency, light weight and compactness, and easy, trouble-free installation.
Heat recovery, which takes place using a device made entirely of polystyrene, makes it unnecessary to use post-handling systems for replacement air.
They can be supplied in combination with an air ionisation system, which is used to sanitise and deodorise air and the surfaces of the machine, ducting and neighbouring rooms.

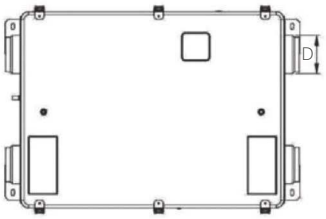
- Compliant with ERP 2016-2018,
- Low consumption EC fans,
- Integrated by-pass system,
- Compact and ultra lightweight,
- Radio-wave control panel with no wiring (optional)
- Filters and PM1O 50%

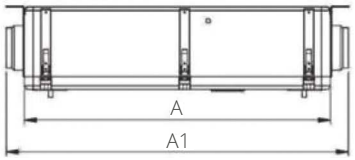
HFR heat recovery unit

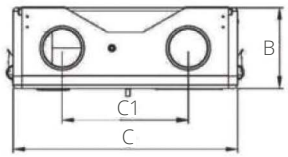
Pannello di controllo PCUS/PCUSM

MODEL		HFR17	HFR33
Power supply	V/Ph/Hz	230/1/50	
Nominal air flow volume	m³/h	100	200
Maximum air flow volume	m³/h	175	330
Nominal static flow rate	Pa	210	250
Weight	kg	12	17
Sound pressure level (1)	dB (A)	46	50
Operating limits	°C	-15 - 45	
FANS			
Max. current consumption	A	0.52	1.50
Max power consumption	W	54	170
Level of protection	IP	54	
Control signal	0-10 VDC		
WINTER OPERATION HEAT RECOVERY UNIT(2)			
Seasonal	%	92.1	90.0
Recovered power	W	778	1520
Intake air	°C/%	18.0 / 16	17.4 / 17
SUMMER OPERATION HEAT RECOVERY UNIT(3)			
Efficiency	%	87.5	83.9
Recovered power	W	174	334
Intake air	°C/%	26.8 / 68	27.0 / 67
CODE		**0006401**	**0006402**

(1) values refer to 1 metre from the unit in the inlet duct at nominal air flow rate; the operating noise level will generally deviate from the values indicated depending on the operating conditions of reflected and peripheral noise
(2) Nom. winter conditions outside air -5°C, room air 20°C
(3) Nom. summer conditions outside air 32°C, room air 26°C







MODEL DIMENSIONS		HFR17	HFR33
A	mm	874	874
A1	mm	972	972
B	mm	240	300
C	mm	655	655
C1	mm	360	360
D	mm	125	125
D1	mm	16	16

Accessories - HFR and HFRM

PCUS/PCUSM

BW1-BW2

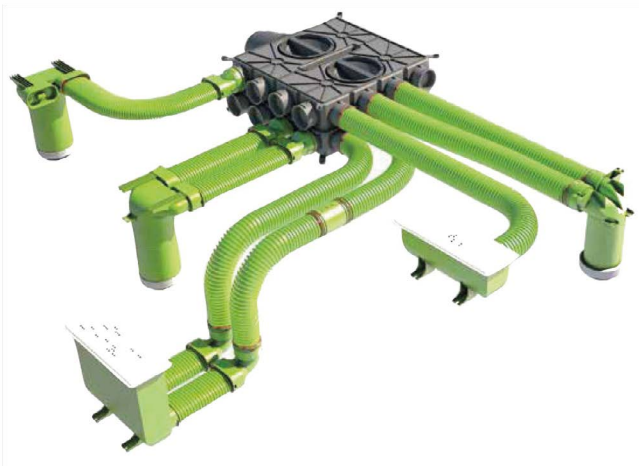
BHC

ION

USW

MODEL	Abb.
Electrical Pre-heat.	**BE1**
Electric Post-Heat.	**BE2**
Water Pre-heat. coil	**BW1**
	BW2
Water Post-cool.-heat. coil	**BHC**
2-way valve kit ON-OFF	**V20**
3-way valve kit MODULATING	**V3M**
Filter and PM1 70%	**F7CF**
ADJUSTMENT ACCESSORIES	
PCUS control panel	**PCUS**
PCUSM (modbus) control panel	**PCUSM**
4-button radio freq. panel	**TS4**
Antenna	**ANT**
Wall-mounted control panel	**WUI**
Wall-mounted CO2 probe	**QSW**
Wall-mounted humidity probe	**USW**
Ethernet network bridge	**BDG**
Ionizer Module	**Ion**

Air distribution accessories - HFR, HFRM and HRH



Air distribution systems for controlled mechanical ventilation are available on request.